Amendments to the Specification:

Please replace the paragraph beginning at page 7, line 1, of the specification as filed, with the following amended paragraph:

With initial reference to FIG. 1, which is a schematic diagram of a preferred echo cancelling system in accordance with the present invention, there is shown, in a dashed line box, an echo canceller 1 forming a part of a network telephone circuit 400 which is connected via digital-to-analog (D/A) converter 90 to an analog hybrid 100 which connects, via local loop 110, to a telephone line or other telephone instrument 120 at a near end 500 in a manner known in the art. Communications from the near end pass through local loop 110 and through hybrid 100 through an analog-to-digital converter 98 for communication to a far end, represented generally at 200. Situated across the network circuit, in parallel to the hybrid 100, is a ~~fast~~ finite impulse response (FIR) filter 10 connected through summing node 20. In a manner known in the art, fast impulse response filter 10 attempts to duplicate the impulse response of any discontinuity at the hybrid connection point, thereby cancelling echoes. ~~Fast~~ Finite impulse response filter 10 is an adaptive filter which receives its filter coefficients, at each sample interval, from coefficient vector update device 40. Coefficient vector update device 40 receives as it input an echo signal e_n, which is a residual echo signal, a step size variable μ, 42, which, in a manner known in the art, effects the speed of convergence, and an excitation signal x_n generally received from the far end 200.

Please replace the paragraph beginning at page 7, line 19, of the specification as filed, with the following amended paragraph:

A double talk detector 30 is also part of echo canceller 1 for controlling coefficient vector update device 40 by deactivating coefficient vector update device 40 during the occurrence of double talk. This effectively halts the adaptation taking place in ~~fast~~ finite impulse response filter 10. There is, however, a finite time delay between the actual onset of double talk and the effective discontinuation of adaptation in ~~fast~~ finite impulse response filter 10. Thus, while it is the goal of double talk detector 30 to in effect disconnect coefficient vector update device 40 from the circuit upon the detection of double talk, typically by setting the step size (μ, 42) to zero, in actuality instantaneous response is presently unobtainable. Thus, the finite time that the double talk detector 30 needs to detect double talk is often enough to misalign the filter coefficients of coefficient vector update device 40 considerably. In other words, even a small error in the double talk detector 30 leads to relatively large errors in the adaptive coefficients provided to ~~fast~~ finite impulse response filter 10 by coefficient vector update device 40. Thus, the samples of echo signal e_n obtained in coefficient vector update device 40 during the period of undetected double talk leads to significant misalignment of ~~fast~~ finite impulse response filter 10 which, upon activation of double talk detector 30 and the discontinuance of adaptation, remains frozen in a significantly non-adapted or divergent state. Under such circumstances, effective suppression of residual echo cannot be obtained.

Please replace the paragraph beginning at page 8, line 21, of the specification as filed, with the following amended paragraph:

With reference now to FIG. 3, there is shown an alternate representation of echo canceller 1 in accordance with the present invention showing double talk detector 30 controlling coefficient vector update device 40 which generates filter coefficients for use by ~~fast~~ finite

impulse response filter 10 by utilizing an adaptive algorithm incorporating the adaptive scaled non-linearity (e.g. FIG. 4) fed by adaptive scaled non-linearity device 50. True echo path 12 is representationally shown connected to the echo canceller through a representational summing node 22, at which point v_n is shown as an input signal which includes background noise and possibly near-end signals from near end 500.

Please replace the paragraph beginning at page 32, line 14, of the specification as filed, with the following amended paragraph:

Thus, based upon the above, the person of skill will recognize that the appropriate variables can be adjusted to accommodate differing application needs. For example, to increase robustness, one could increase λ and decrease k_o. To increase the speed of convergence, decrease λ and increase k_o. Moreover, it will also be recognized that the present invention will still provide fast convergence and robustness in the event that perturbations are caused by changes in the system to which it is applied, such as changes in the filter characteristic of the device that the ~~fast~~ finite impulse response filter is trying to emulate and cancel.